

# Newsletter



*soil, plant and environment*

*providing solutions for*

August 2009

Welcome to the second edition of our new electronic newsletter. We aim to publish this newsletter to you every 6 weeks. Each addition will feature a lead story also bring you regular updates on news both local and abroad, latest research, new products, and tips on efficient use of EM products. This newsletter features lots of hotlinks ([in blue text](#)) which allows you to click through to publications and also to the shop website for purchasing EM.



Naturefarm

Factory,

Christchurch

Naturefarm has been supplying EM to New Zealand for around 10 years. In this time Naturefarm have developed a broad range of applications and diverse client base, from the home gardener to the large scale industrial users. The technology continues to develop on the global scene, and this newsletter will update you on these developments.

## EM technology...where did it come from?

EM technology was developed in Japan in the 1980's and combines a unique blend of natural and beneficial microorganisms. These EM microbes are predominately food type microorganisms, and the combination insures a strong synergistic action that revives and stimulates natural processes in soil and water ecosystems.

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## Prof. Teruo Higa, University of Ryukyus, Okinawa...inventor of EM

### EM technology...the global scene

EM was first promoted in Japan and given to the world around 25 years ago by an organization promoting environmental values and natural farming. The promotion and spread of EM has been philanthropic and grassroots in process, and has been remarkably successful in the diversity of use and uptake in many environments. EM is used in around 140 countries globally, with manufacturing plants in 60 countries.

### How does EM work?

The complex diversity of EM is the secret to its success in a wide range of environments. EM has the ability to adapt and shift emphasis between the different families of microorganisms when its exposed to different environments. This is why it can work in diverse situations such as, waste management for odour control and organic matter breakdown, and then also be effective in soils for enhancing plant growth. ([want to read more?](#))

### How is EM technology being made and used in NZ?

EM is made in NZ using only local materials and microbes. The technology is promoted in NZ by a charitable trust called the New Zealand Nature Farming Society. The EM is made, packaged and distributed under the Naturefarm label from a dedicated factory in Christchurch. The EM is made under a completely natural process and has **Bio-Gro certification** (BG 2924) ([how to buy EM](#)).

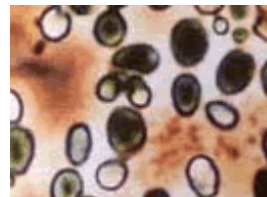
### Three main families of microbes in EM...



**Lactic Acid Bacteria**



**Photosynthetic Bacteria**



**Yeast**

Do you want to know more about specific applications for EM?..then choose from the list below:

Cropping and sheep farming ([read more](#))

Dairy farming has a number of key applications areas that can significantly improve with EM use...particularly in terms of environmental impact ([read more](#))

Viticulture, vineyard management and composting.....multiple uses in and around the Vineyard ([read](#)

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[more\)](#)

Waste management...odour control....eliminate those smells! ([read more](#))

Large scale Composting....how can it help? ([read more](#))

**In each newsletter we feature some of the application areas listed above plus other interesting projects. Our feature story this month is a great story written by Trisha Fisk, a well known feature writer on small farm management. See below for information about Trisha's Book... Practical Smallfarming in New Zealand**

## Feature Story

This is a contribution from the the well known Journalist, Trisha Fisk who writes for "Growing Today"( *article first published in 2004*)

### ***Down on the Farm ....What is EM?***

"I have a kid here with a grin as big as the town hall. Middle son has just come home with the news that he has won the pumpkin growing competition. Our local school believes quite strongly in a diverse syllabus and part of the variety is a grounding in horticulture. (It's amazing how much easier it is to get kids to eat the silverbeet if they grew it!)

Anyway, so that their skills would not be forgotten over the summer holidays or limited just to the school vege garden, pupils were invited to grow pumpkins at home. The seeds were supplied and the kids encouraged to: "get out there and grow it!" Now these aren't just ordinary pumpkins, but a giant variety suitable for Cinderella's carriage sort of thing. Well I have to confess... I did not do the great parental assistance and encouragement bit. I was just too busy at the time and told them as much. "You want to grow a pumpkin, fine, you look after it." And they did. All through summer and into autumn. And the end result weighed in at an impressive 48.6 kilos. Which is heavier than the two youngest gardeners put together!

We were a bit lucky. The day of the grand weigh-in, a digger happened to arrive for a bit of dam cleaning and drain digging on the farm. Well he was quickly hijacked off more important tasks and ordered to the vege garden so we could roll the bloody vegetable into his bucket and he could carefully deposit it in the trailer for the trip to school. No one thought to grow carry handles on the thing and it was downright awkward to move around. But how did my neglected boys and their rather erratic watering programme come up with such impressive results, a good eight kilos clear of the nearest rival? I cannot put it down to initial soil fertility. The garden had been grown on for several years and abandoned to weeds for a couple of years after that. I had neither manured nor cultivated it for a considerable time. Water may have something to do with it. The season was sprinkled with reasonably regular rainstorms. And sudden bursts of enthusiasm from the youngest gardener meant the plant probably never went thirsty for too long.

But I suspect our success, (sorry... their success), had something to do with **underground effective microorganisms**. Back at the beginning of the story, I saw my gallant gardeners sweating buckets trying to weed the patch. It was obviously beyond them and I knew darn well I didn't want to get sucked into

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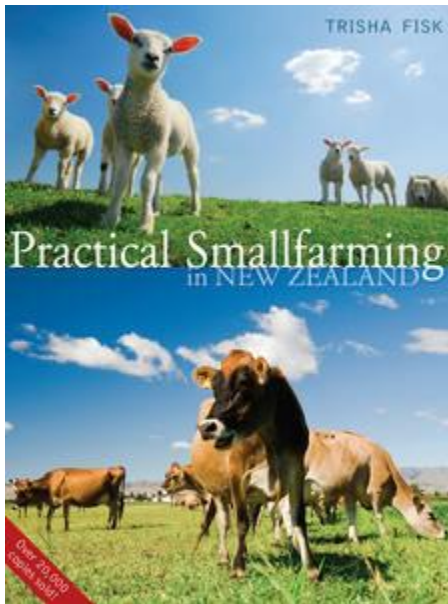
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such a time consuming task. So I said, hey look, why don't we just mulch all those weeds down. Don't pull em out and throw them away, we will just bury the whole lot under a bale of old hay and several layers of newspaper. Which we did. And then I **suggested chucking on some EM. (Effective microorganisms)**. I had been given a bottle by a local organic farmer to have a play with, and this seemed the perfect opportunity to try it out with only the kids watching. So I mixed some of the EM up with a bit of molasses and water, sprinkled it over the mulch and got the guys to water it in well. End of Mum's involvement.

What a result!

So what is this EM? And what has it to do with farming?".....[click here to read the rest of the story](#)



Trisha Fisk... Well known author of, **Practical Smallfarming in New Zealand**

## News from overseas ....(extract from APNAN news April 2009).

"Huge Tomato Farm in South Africa uses EM technology! .....The mandate region for APNAN for its activities related to Nature Farming and EM ends in Pakistan to the west! However as we gather experience, and due to our excellent record, we are called upon to help out other regions as well. Thus our new officer – Nishibuchi was requested to travel to South Africa to help out with EM, as the officer of EMRO in charge of this region, Mr. Fukugauchi is always busy with this important continent!! Nishibuchi san had been nervous as it was his first visit –and had really enjoyed it! He was met on arrival by Mr. Yoshida our counterpart based in Pretoria. Thereafter Nishibuchi san visited the EM unit, checked quality and finally met Prof. Prinsloo – who has been very active since the International Nature Farming Conference held in South Africa in 1999. Prof. Prinsloo, took Nishibuchi san to the ZZ2 farm, **which is one of the largest tomato farms in the world and grows some 1800 ha of tomato and 500 ha of onions – the ideal crop mix for a good spaghetti sauce!! They were introduced to EM by Prof. Koos Prinsloo in 2001 and have been using EM for composting, making EM-FPE (fermented plant extract as an insect repellent through a series of large tanks. They also have a very good herb garden and make their own recipes of EM-FPE"**

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***Prof. Koos Prinsoloo (Centre) has been at the forefront of research and development of EM technology in South Africa (Tomato Crop in the background)***

## Tip for the Month

For **septic tanks, on-site bio-systems and even smelly drains!** These systems need good biology to function well. More often they begin to smell and do not function well due to the use of bleaches, such as Napi-san which is very hard on biology. **Add activated EM or EM1 at 1:1000** (EM to liquid material) initially, **then dose weekly to monthly** at about 1 cupful per average household. Drains.... add a capfull per week directly into household drains that are smelling. More product is required for larger drains, use rule of thumb 1:1000 dilution (EM to liquid material) Best done at night so the EM sits in the drain and not flushed away.



**Waipara Winery treating waste water using EM-A for odour control and bio-function**

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## EM Products available to purchase

### EM1 20 litre container ([go to shop](#))



***EM1 stock solution in 20 litre container.  
For larger scale users, enough to cover 20 ha's (after activating).***

- \*Revitalise your soils
- \*increase crop yield and quality
- \*increase clover content in pasture
- \* make great compost
- \* treat your waste water
- \* improve the environment
- \* treat your effluent ponds
- \* improve intensive animal housing systems

### EM1 5 litre container ([go to shop](#))



***EM1 stock solution in a 5 litre container.  
For large gardens or smaller farms, can make up 100 litres of EM-A (after activating).***

Makes up to 100 litres of EM-A (after activating)

- \*Revitalise your soils
- \*increase crop yield and quality
- \*increase clover content in pasture
- \*make great compost
- \* treat your waste water
- \*improve the environment
- \*improve your poultry/pigs/calf rearing
- \*make your septic tank or home sewage system work more efficiently without smells!

### EM1 1 Litre Container ([go to shop](#))



***EM1 stock solution in 1 litre, suitable for home and garden use. Many uses around the home and garden.***

- \* revitalise your soil
- \* activate your compost

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- \* produce healthy bountiful plants with less fertiliser
- \* apply to pot plants
- \* use for cleaning
- \* apply pet bedding and any areas that have odour issues.
- \* great for septic tanks, no smell, less cleaning.

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